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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,889	07/08/2003	Hsiao Ming Kuo	LA-7455-101	9842

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EXAMINER

CHEN, ALAN S

ART UNIT PAPER NUMBER

2182

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,889

Applicant(s)

KUO, HSIAO MING

Examiner

Alan S Chen

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: page 2, line 7, "UCB" should be "USB" .

Appropriate correction is required.

Claim Objections

2. Claim 7 is objected to because of the following informalities: "is consisted" should be replaced with "consists". Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 USC 103(a) as being unpatentable over No. 6,782,245 to Lazzarotto et al. (hereafter Lazzarotto) in view of Chien et al. (hereafter Chien).
5. As per claim 1, Lazzarotto discloses a circuit module (Fig. 4, element 400) for receiving and demodulating into digital form (Column 5, lines 20-45, frontend, e.g., Fig. 4, elements 404 and 405 demodulate what is received from antenna), wireless signals (Fig. 4) sent from a wireless mouse, a wireless keyboard, and a wireless gamepad (Fig. 4, elements 410n, Column 4, lines 54-60) and transmitting the digital data to a computer platform (Fig. 4, USB/PS2 interface to a computer). Lazzarotto further discloses the circuit module to be enclosed in a

Art Unit: 2182

communication hub that can have a small form factor (Column 13, 30-45, 10cm x 6cm x 2 cm, e.g., something that fits in the palm of a hand).

Lazzarotto does not disclose expressly the receiver comprising a housing and a connector coupled to the housing to be electrically connected to the circuit module.

Chien discloses a housing (Fig. 11, element 1) and a electrical connector (Fig. 2, element 11) that can receive wireless signals and transmit the wireless signal via electrical signals over the connector to a PC (paragraphs 7-11).

Lazzarotto are analogous art because they are from similar problem solving area in transferring digital data that has been converted from wireless signals to a PC over the USB standard.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to have housing and connector connected to the circuitry within the housing to encapsulate the invention of Lazzarotto.

The suggestion/motivation for doing so would have been Lazzarotto himself suggests the small form factor as shown in Chien (Column 13, lines 30-45) and the fact the both interface the PC with USB, which based on the USB specification defines the size of the USB connector to be a standard size. Therefore the mechanical housing of the Lazzarotto, in addition to the assertion by Lazzarotto himself to be a restricted small size, make the housing of Chien precisely what Lazzarotto intends to hold his circuitry.

Therefore, it would have been obvious to combine Lazzarotto with Chien for the benefit of a housing and connector based on the USB specification and a small form factor as defined by Lazzarotto himself.

Art Unit: 2182

6. As per claim 2, Lazzarotto discloses the receiver of claim 1, Lazzarotto further disclosing the circuit module comprises at least a wireless signal receiving module unit, a wireless mouse signal demodulation unit, a wireless keyboard signal demodulation unit, and a wireless gamepad signal demodulation unit (Column 9, line 60-Column 10, line 4).

7. As per claim 3, Lazzarotto discloses the receiver of claim 1, wherein the connector includes a signal transmission control module (Fig. 4, element 406 and 407) to be transmitted over the interface to the PC (the connector).

8. As per claim 4, Lazzarotto discloses the receiver of claim 1, wherein the computer platform is provided with a communication port for electrical connection to the connector (this is intrinsic, the PC has a USB port specified by the USB specification).

9. As per claims 5 and 6, Lazzarotto discloses the receiver of claim 1, wherein the communication port is a USB or PS/2 communication port (Fig. 4, "USB / PS2 Interfaces to computer").

10. As per claim 7, Lazzarotto discloses the receiver of claim 1, wherein Chien further discloses the housing consists of an upper cover and an opposing lower cover to be coupled with the upper cover (Fig. 2, has upper cover and lower cover, connected by side covers).

11. As per claim 8, Lazzarotto discloses the receiver of claim 2, wherein the wireless signals receiving module unit (Fig. 4, element 400) is constructed as an antenna module board (Fig. 4, element 402 and 403) and the wireless mouse signal demodulation unit, wireless keyboard signal demodulation unit, wireless gamepad signal demodulation unit (Fig. 4, elements 404 and 405) are integrally constructed as a circuit assembly electrically connected to the antenna module

Art Unit: 2182

board via a PCB (Fig. 4, shown as one unit, intrinsically on one PCB given the specified form factor).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to wireless peripheral receiving devices:

U.S. Pat. No. 6,078,789 to Bodenmann et al.


U.S. Pat. No. 6,687,774 to Milios et al.

U.S. Pat. No. 6,216,188 to Endo et al.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


KIM HUYNH
PRIMARY EXAMINER 1/24/08